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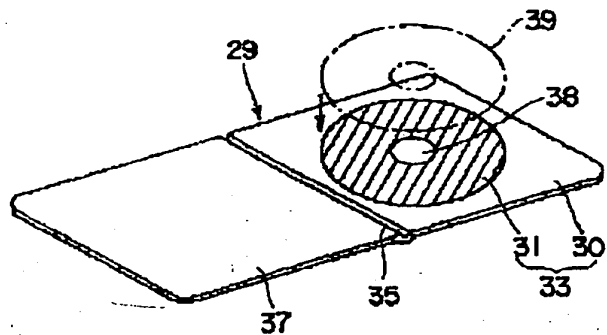
APPLICATION NUMBER : 08303719

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TITLE : CONTAINER BODY OF DISC FOR
RECORD MEDIA



ABSTRACT : PROBLEM TO BE SOLVED: To easily attach or detach a disc and always keep clean the recording face of the disc, by laminating a silicone resin layer with a smooth surface on one side face and/or both faces of a base board to form a containing part of a disc and closely holding the disc for record media on the silicone resin layer.

SOLUTION: A cover 37 is connected to a containing part 33 for a disc in which a silicone layer 31 tightly holding the disc is laminated on the base board 30, through a folding part 35 with a folding groove to form a disc container body 29. A release paper 39 to protect the surface is stuck to the silicone resin layer 31 to be freely peelable. When a disc is contained in the disc container body 29, the release paper 39 is peeled off and the disc is put on the silicone resin layer 31 to closely fit it thereto and the cover 37 is turned and superposed. The silicone resin layer 31 is made of silicone resin, preferably, having 20-70 degrees is hardness. In this way, the disc can be tightly fitted and the recording face of the disc can be always kept clean.

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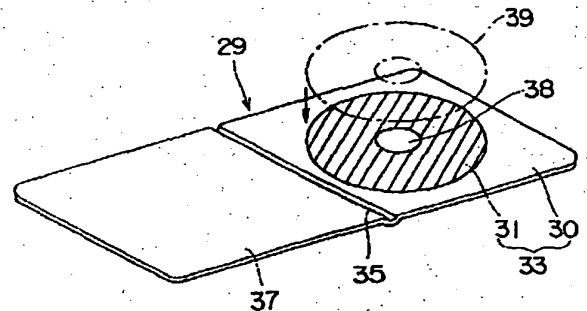
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(54)【発明の名称】 記録媒体ディスク収納体

(57)【要約】

【課題】 ディスクを容易に若脱できるとともに、構造が簡単で軽量、低コストであり、嵩張らず保管、携帯に便利なディスク収納体は存在しなかった。

【解決手段】 基板の片面及び、または両面に表面が平滑なシリコーン樹脂層を積層してディスク収納部となし、前記シリコーン樹脂層に記録媒体ディスクを密着保持させるようにしたことを特徴とする。



【特許請求の範囲】

【請求項1】 基板の片面及び、または両面に表面が平滑なシリコン樹脂層を積層してディスク収納部となし、前記シリコン樹脂層に記録媒体ディスクを密着保持させるようにしたことを特徴とする記録媒体ディスク収納体。

【請求項2】 前記シリコン樹脂層は、硬度20度〜70度のシリコン樹脂によって形成したことを特徴とする請求項1記載の記録媒体ディスク収納体。

【請求項3】 前記シリコン樹脂層は、プライマーを介して基板に積層したことを特徴とする請求項1または請求項2記載の記録媒体ディスク収納体。

【請求項4】 前記基板は紙類を主体に形成したことを特徴とする請求項1〜3のいずれか1項に記載の記録媒体ディスク収納体。

【請求項5】 前記基板は合成樹脂を主体に形成したことを特徴とする請求項1〜3のいずれか1項に記載の記録媒体ディスク収納体。

【請求項6】 前記ディスク収納部に、ディスクを覆う蓋部を連設したことを特徴とする請求項1〜5のいずれか1項に記載の記録媒体ディスク収納体。

【請求項7】 前記基板の片面及び、または両面に2つ以上のディスクを密着保持するために2以上のシリコン樹脂層を並列的に積層したことを特徴とする請求項1〜6のいずれか1項に記載の記録媒体ディスク収納体。

【請求項8】 前記ディスク収納部を折り曲げ部を介して2以上連設したことを特徴とする請求項1〜6のいずれか1項に記載の記録媒体ディスク収納体。

【請求項9】 前記基板の片面及び、または両面に2つ以上のディスクを密着保持するために2以上のシリコン樹脂層を並列的に積層してディスク収納部を形成し、前記ディスク収納部を折り曲げ部を介して2以上連設したことを特徴とする請求項1〜6のいずれか1項に記載の記録媒体ディスク収納体。

【請求項10】 前記ディスク収納部は、基板に設けた凹部内にシリコン樹脂層を積層することによって形成したことを特徴とする請求項1〜9のいずれか1項に記載の記録媒体ディスク収納体。

【発明の詳細な説明】

【0001】

【発明の属する技術分野】この発明は、コンパクトディスク、ミニディスク、CD-ROM、デジタルビデオディスク、レーザーディスク等で代表されるコンピュータ用あるいは音楽用の記録媒体ディスクを販売、保管するのに好適な記録媒体ディスク収納体に関する。

【0002】

【従来の技術】従来、コンパクトディスク等を販売、保管する容器としては、一般に合成樹脂によって形成された本体と蓋とが回動自在に連結され、本体の内側にディスク収納用トレイがはめ込まれた構造のものが使用され

ている。図8は、従来のコンパクトディスク収納容器の一例を示す。収納容器1は、本体3と、前記本体3にヒンジ機構によって回動自在に連結された蓋5と、前記本体3にはめ込まれるディスク収納用トレイ7とからなる。前記本体3は、板部9の端縁に側壁10を立設することによって形成され、前記側壁のうち対向する側壁は前記蓋5の内側に嵌合するように板部9の外端縁部11よりも凹んで立設され、上部には複数の切欠13が設けられている。

【0003】前記蓋5は、板部15の端縁に平行な側壁17を立設することによって形成され、前記側壁17の端部を板部15から突出させて内側に設けた突起19を前記本体3の側壁10に設けた透孔に嵌入することによって回動自在に連結してなる。また、蓋5の本体3側の端縁には折返し片20が設けられ、側壁17の内面にはタブ21が突設されている。前記折返し片20とタブ21によってタイトル、解説等を表示した印刷用紙が保持される。また、前記ディスク収納用トレイ7は、ディスク収納用凹部23の中心部にディスク保持部25が突設されている。前記ディスク保持部25は、ディスクの透孔を嵌合させて固定するとともに、ディスクの記録面が浮き上がった状態で非接触に保持する。前記構成のディスク収納用トレイ7が本体3内にはめ込まれて一体に組み立てられる。

【0004】

【発明が解決しようとする課題】上記のように、従来のコンパクトディスク収納容器には、ディスクを固定するためのディスク保持部25が突設されているから、ディスク保持部25の高さの分だけ本体3の厚さが厚くなる。上記本体3とディスク収納用トレイ7とを一体化した構造のものも知られているが、ディスク保持部25の高さ分だけの厚さは必要である。このために、ディスクを販売、保管する際には大きなスペースを必要とするとともに、携帯に不便であった。また、ディスク保持部25が破損したときには容器として使用することができなくなる。さらに、これらの容器は、合成樹脂により形成されているから不注意に落とすと破損し易いという問題がある。

【0005】ディスクの収納には袋も使用されているが、袋は安価であるものの、ディスクの出し入れが不便であるばかりでなく、埃やゴミが付着するおそれがある。また、袋はディスクを固定した状態で保持することができなから、ディスクの記録面が接触することになり好ましい状態で保管することができない。

【0006】

【発明の目的】この発明はかかる現況に鑑みてなされたもので、ディスクの着脱が容易であるとともに、構造が簡単で軽量化、低コスト化が実現でき、さらに、厚さが薄いので携帯に便利であり、ディスクの記録面が常にクリーンな状態に保持できる記録媒体ディスク収納体を提

供するものである。

【0007】

【課題を解決するための手段】この発明は上記目的を達成するために次のような構成とした。即ち、この発明の請求項1に係る記録媒体ディスク収納体は、基板の片面及び または両面に表面が平滑なシリコン樹脂層を積層してディスク収納部となし、前記シリコン樹脂層に記録媒体ディスクを密着保持させるようにしたことを特徴とする。また、請求項2に係る記録媒体ディスク収納体は、前記シリコン樹脂層は、硬度20度〜70度のシリコン樹脂によって形成したことを特徴とする。また、請求項3に係る記録媒体ディスク収納体は、前記シリコン樹脂層は、プライマーを介して基板に積層したことを特徴とする。また、請求項4に係る記録媒体ディスク収納体は、前記基板は紙類を主体に形成したことを特徴とする。また、請求項5に係る記録媒体ディスク収納体は、前記基板は合成樹脂を主体に形成したことを特徴とする。

【0008】また、請求項6に係る記録媒体ディスク収納体は、前記ディスク収納部に、ディスクを覆う蓋部を連設したことを特徴とする。また、請求項7に係る記録媒体ディスク収納体は、前記基板の片面及び または両面に2以上のディスクを密着保持するために2以上のシリコン樹脂層を並列的に積層したことを特徴とする。また、請求項8に係る記録媒体ディスク収納体は、前記ディスク収納部を折り曲げ部を介して2以上連設したことを特徴とする。また、請求項9に係る記録媒体ディスク収納体は、前記基板の片面及び または両面に2つ以上のディスクを密着保持するために2以上のシリコン樹脂層を並列的に積層してディスク収納部を形成し、前記ディスク収納部を折り曲げ部を介して2以上連設したことを特徴とする。また、請求項10に係る記録媒体ディスク収納体は、前記ディスク収納部は、基板に設けた凹部内にシリコン樹脂層を積層することによって形成したことを特徴とする。

【0009】

【発明の実施の形態】以下に、この発明を図示する実施形態について詳細に説明する。図1はこの発明に係るディスク収納体の第1実施形態を示し、ディスク収納体29は、基板30にディスクを密着保持するシリコン樹脂層31を積層してなるディスク収納部33に折返し用溝による折り曲げ部35を介して蓋部37を連設することによって形成されている。前記シリコン樹脂層31には、表面を保護するために剥離紙39が剥離自在に貼着されている。前記ディスク収納体29にディスクを収納するには、前記剥離紙39を剥がしてディスクを前記シリコン樹脂層31上に載置して密着させ、蓋部37を折り返して重ね合わせればよい。

【0010】前記基材30及び蓋部37を形成する材質は特に限定されるものではなく、紙、板紙、厚紙、加工

紙、合成紙などの紙類、合成樹脂、金属、合成木材等を使用することができる。また、これらの2つ以上の組み合わせであってもよく、例えば、基材30を合成樹脂板とし、蓋部37を紙類として蓋部37を基材30の表面に貼着する構成としたり、あるいは、基材30及び蓋部37とも紙類の表面に合成樹脂フィルムをラミネートしたものであってもよい。蓋部37が折り曲げ自在な材質である場合には、前記折り曲げ部35を省略するか、単に折返し用筋とすることができる。

【0011】この発明は、シリコン樹脂の特性である接着性、耐熱性、耐寒性等を利用したもので、ディスクを載せるだけでびったり密着して確実に保持される。前記シリコン樹脂層31はディスクを密着させるとともに、ディスクの記録面についた埃、ゴミ、手垢等も接着させディスクをいつもきれいに保持する。シリコン樹脂層31の表面は平滑に仕上げられており、鏡面に近いほど好ましい。また、前記シリコン樹脂層31は、硬度20度〜70度のシリコン樹脂によって形成され、平面形状はディスクを密着させて保持する大きさであれば特に限定されないが、外周縁は収納するディスクの大きさに合わせ中心部には円形の切欠38を設けることが好ましい。

【0012】前記基材30とシリコン樹脂層31によるディスク収納部33を構成する構造体は、図2に示すように、シリコン樹脂層31の裏面にプライマー36を施して基材30に積層して形成するか、シリコン樹脂層31の裏面にプライマー36を施して合成樹脂製シートに積層した後、前記合成樹脂製シートを接着剤を介して基材30に固着することによって形成してもよい。また、前記シリコン樹脂層31は、印刷方式あるいは張り合わせ方式によって基材30に積層することができる。

【0013】印刷方式による場合には、基材30の印刷面をプライマー処理し、均一に仕上げて熱処理した後にメッシュ330番〜70番のスクリーンを用いて溶剤で調製したシリコンを印刷する。厚さの調製は適宜重ね印刷をすればよい。印刷後、80℃〜150℃の温度を加えて熱処理をする。一方、張り合わせ方式による場合には、予め型成形したシリコン樹脂シートを所定の形状に型抜きをし、裏面にプライマー処理をして基材30に積層するか、プライマー処理をして一旦合成樹脂製シートに積層し、前記合成樹脂製シートの表面に塗布した接着剤を介して基材30に固着すればよい。尚、上記実施形態では、基板30に1つのシリコン樹脂層31を積層することによってディスク収納部33を構成したが、シリコン樹脂層は1つに限定されるものではなく、2以上のディスクを収納するために2以上のシリコン樹脂層を並列させて積層してもよい。

【0014】図3はこの発明に係るディスク収納体の第2実施形態を示し、ディスク収納部と蓋部とを共用する

構造としたもので、第1実施形態におけるディスク収納部を折り曲げ部を介して連設してなる。即ち、ディスク収納体40は、基板30aにディスクを密着保持するシリコーン樹脂層31aを積層してなるディスク収納部33aを折り曲げ部35aを介して連設することによって形成されている。前記シリコーン樹脂層31aには、表面を保護するために剥離紙41が剥離自在に貼着されている。前記ディスク収納体40にディスクを収納するには、前記剥離紙41を剥がして2枚のディスクを前記シリコーン樹脂層31a上にそれぞれ載置して密着させ、両ディスク収納部33aを閉じ合わせればよい。尚、上記実施形態では、ディスク収納部33aを2つ連設する構成について説明したが、3以上のディスク収納部を連設することも可能である。3以上のディスク収納部を連設した場合には、互い違いに折り曲げる蛇腹折りとすることができる。

【0015】上記ディスク収納部33、33aにおける剥離紙39、41は、シリコーン樹脂層31、31aと同一形状に形成してもよい。また、基板30、30aと蓋部37の内面及び/または外面には、ディスクの記録内容を表示する線、タイトル、解説、キャッチフレーズ、宣伝等をカラー印刷することができる。シリコーン樹脂層31、31aは前記印刷の上に設けることができる。このように、シリコーン樹脂層31、31aを印刷の上に設ける場合には、透明または半透明なシリコーン樹脂層とすることが好ましい。尚、基板30aの材質、シリコーン樹脂層31aの形成方法及び印刷による表示等は第1実施形態と同じであり、以下の実施形態においても同様である。従って、以下においても同一構成については、簡略化のためにその説明は省略する。

【0016】図4及び図5はこの発明に係るディスク収納体の第3実施形態を示し、ディスク収納部に凹部を設けてなる。即ち、ディスク収納体43は、基板30bにダンボール等の厚紙を用いてディスクを収納する凹部45を設け、前記凹部45にディスクを密着保持するシリコーン樹脂層31bを積層してディスク収納部33bとなし、前記ディスク収納部33bの外面に基板30bの二倍の大きさであって半分を蓋部47とし半分を貼着部49とした用紙の貼着部49を貼着してなる。凹部45の深さは、ディスクの厚さと略同じか、浅く形成すればよい。尚、図中、50、51はディスクを取り出すための指掛けスロットである。

【0017】図6はこの発明に係るディスク収納体の第4実施形態を示す。この実施形態におけるディスク収納体53は、ディスクを挿入可能な透孔55を有する枠体57と蓋部59を連設してなる基材30cにシリコーン樹脂層31cを積層してなるディスク収納部33cとからなり、シリコーン樹脂層31cが前記透孔55内に位置するように枠体57と基板30cとを一体に固着形成し、前記透孔55をディスクを収納する凹部としたもの

である。このように、枠体によりディスク収納部に凹部を形成した場合には、第3実施形態に比してシリコーン樹脂層の形成が容易である。また、第3及び第4実施形態のように、凹部にディスクを収納した場合には一層安全に保管することができる。

【0018】さらに、図7は、この発明に係る記録媒体ディスク収納体の利用例を示し、ディスク収納体60は、基板30dにシリコーン樹脂層31dを積層してディスク収納部33dとなし、基板30dに切取線61を介して綴じ代63を連設してなる。書籍65に綴じ込む際に、前記シリコーン樹脂層31dにディスクを密着させた後、ディスクを覆うカバーを一体に設けて密封すればよい。そして、前記綴じ代63を書籍65に綴じ込むことによって書籍と一体化させることが可能であり、基板30dはきわめて薄く形成することができるから、膨れ上がりが防止され書籍65の厚みを最小限に押さえることができる。

【0019】ディスク収納体として使用する場合には、綴じ代63から切り離せばよい。バインダー用孔64を穿設しておけば、切り放した後バインダーに綴じ込むことによって保管することもできる。また、カバーだけを取り除くことによって書籍65から切り放すだけで使用することも可能である。尚、ディスク収納部33dを袋に収納し、前記袋を書籍に綴じ込むことも可能である。近年、コンピューター用雑誌や音楽雑誌等には付録として書籍と一体に販売することが行われており、この発明に係るディスク収納体は、きわめて薄型に形成することができるから、書籍への綴じ込みは勿論、保管、形態にきわめて有効である。

【0020】尚、上記各実施形態では、記録媒体ディスク収納部は基板の片面にシリコーン樹脂層を設けることによって形成したが、シリコーン樹脂層を基板の両面に設けることも可能である。この場合には、両面に蓋部を設けることが好ましい。また、ディスク収納体には、蓋部を適宜省略することが可能である。さらに、この発明の範囲において、適宜変形、変更することができるのは勿論である。

【0021】

【発明の効果】この発明に係る記録媒体ディスク収納体は、平滑な基板にシリコーン樹脂層を積層するものであるからほとんど基板の厚さとなり、ディスクを収納した場合でもディスクの厚さに対して基板の厚さが追加されるにすぎない。また、シリコーン樹脂の接着性を利用したものであるから、ディスクの着脱が容易でありディスクを全体的に密着保持するばかりでなく、ゴミ、埃等を除去しディスクの記録面を常にクリーンな状態に保持するという二義的効果も有する。また、この発明に係るディスク収納体は、構造が簡単で軽量化、低コスト化が実現できるとともに、厚さが薄いので保管、携帯に便利である。また、基板には任意の印刷が可能であり、従来の

ように印刷用紙と容器とを別個に形成する必要がなく、両者の一体化により構造の簡略化と薄さを図ることができる。

【図面の簡単な説明】

【図1】この発明に係るディスク収納体の第1実施形態の斜視図である。

【図2】同じく要部拡大断面図である。

【図3】この発明に係るディスク収納体の第2実施形態の斜視図である。

【図4】この発明に係るディスク収納体の第3実施形態の斜視図である。

【図5】同じく要部拡大断面図である。

【図6】この発明に係るディスク収納体の第4実施形態の斜視図である。

【図7】書籍に縦じ込む利用例を示す説明用斜視図である。

【図8】従来のコンパクトディスク収納容器の分解斜視図である。

【符号の説明】

29 ディスク収納体

30 基板

30a 基板

30b 基板

30c 基板

30d 基板

31 シリコン樹脂層

31a シリコン樹脂層

31b シリコン樹脂層

31c シリコン樹脂層

31d シリコン樹脂層

33 ディスク収納部

33a ディスク収納部

35 折り曲げ部

35a 折り曲げ部

36 プライマー

37 蓋部

38 切欠

39 剥離紙

40 ディスク収納体

41 剥離紙

43 ディスク収納体

45 凹部

47 蓋部

49 貼着部

50 指掛けスロット

51 指掛けスロット

53 ディスク収納体

55 透孔

57 棒体

59 蓋部

60 ディスク収納体

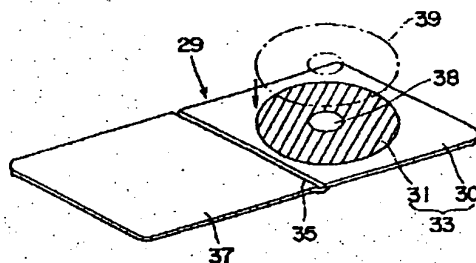
61 切取線

63 縦じ代

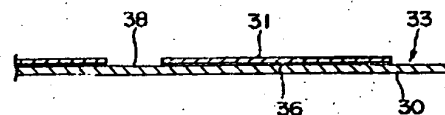
64 バインダー用孔

65 書籍

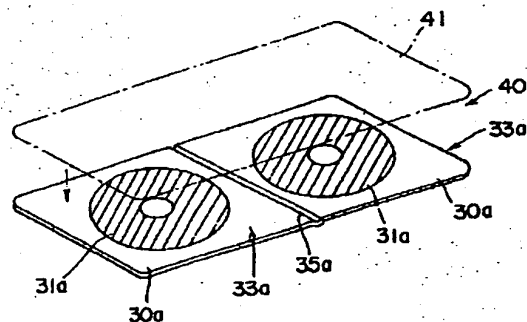
【図1】



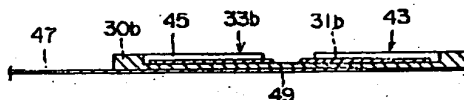
【図2】



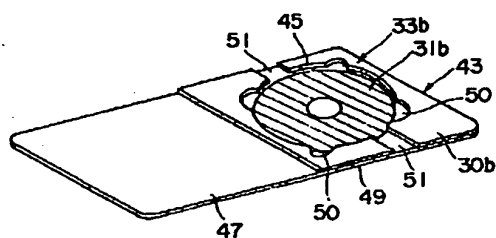
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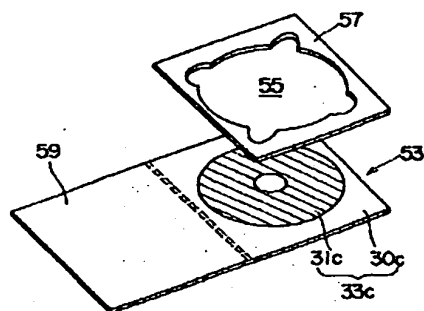
【図5】



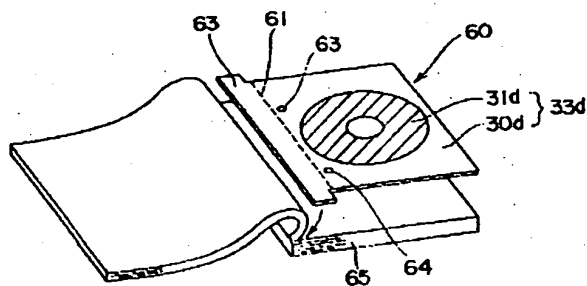
【图4】



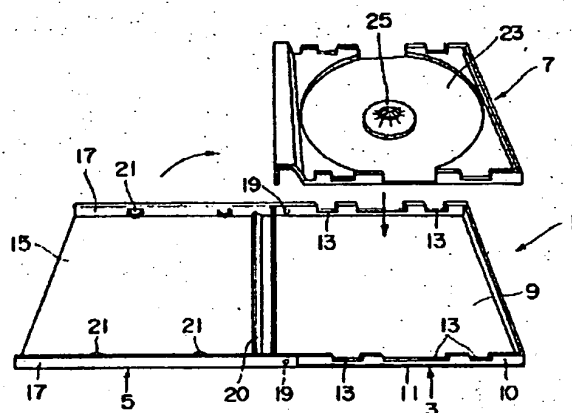
【図】



【圖7】



【図8】



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(54) Name of the invention:

Recording Media Disc Housing Body

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(22) Filed Date: Hei-Sei 8 (1996) 10/29

(71) Patent Assignee: Fukayama KK

[Note: Names, addresses, company names and brand names are translated in the most common manner. Japanese language does not have singular or plural words unless otherwise specified by a numeral prefix or a general form of plurality suffix.]

(54) [Name of the Invention]

Recording Media Disc Housing Body

(57) [Abstract]

[Problem]

A recording media housing body, in which the disc can be easily attached and detached and which together with that has a simple and light weight structure, and which is not bulky for storage and is convenient for portability, does not exist.

[Solution Measure]

The solution measure is characterized by the fact that it is a disc housing part where on the surface of one side and/or both sides of a substrate plate a smooth silicone resin layer is layer laminated, and on the above described silicone resin layer the recording media disc is attached and supported.

[Scope of the Claims]

[Claim 1]

Recording media disc housing body characterized by the fact that it is a disc housing part where on the surface of one side and/or both sides of a substrate plate a smooth silicone resin layer is layer laminated, and on the above described silicone resin layer the recording media disc is attached and supported.

[Claim 2]

Recording media disc housing body according to the above described Claim paragraph 1, characterized by the fact that the above described silicone resin layer is formed from a silicone resin with a hardness that is in the range of 20 ~ 70 degrees.

[Claim 3]

Recording media disc housing body according to the above described Claim Paragraph 1 or Claim paragraph 2, characterized by the fact that the above described silicone resin layer is layer laminated on the substrate plate with a primer in between.

[Claim 4]

Recording media disc housing body according to any one of the above described Claim Paragraphs 1 through 3, characterized by the fact that the above described substrate plate has a main body formed from a paper type material.

[Claim 5]

Recording media disc housing body according to any one of the above described Claim Paragraphs 1 through 3, characterized by the fact that the above described substrate plate has a main body formed from a synthetic resin type material.

[Claim 6]

Recording media disc housing body according to any one of the above described Claim Paragraphs 1 through 5, characterized by the fact that in the above described disc housing part a disc cover part is provided.

[Claim 7]

Recording media disc housing body according to any one of the above described Claim Paragraphs 1 through 6, characterized by the fact that on the surface of one side and/or two sides of the above described substrate plate, in order to attach and support two or more discs, two or more silicone resin layers are sequentially layer laminated.

[Claim 8]

Recording media disc housing body according to any one of the above described Claim Paragraphs 1 through 6, characterized by the fact that the 2 or more of the above described disc housing parts are attached through a folded part.

[Claim 9]

Recording media disc housing body according to any one of the above described Claim Paragraphs 1 through 6, characterized by the fact that on the surface of one side and/or two sides of the above described substrate plate, in order to attach and support two or more discs, two or more silicone resin layers are sequentially layer laminated and the disc housing part is formed, and 2 or more of the above described disc housing parts are attached through a folded part.

[Claim 10]

Recording media disc housing body according to any one of the above described Claim Paragraphs 1 through 9, characterized by the fact that the above described disc housing part is formed as a silicone resin layer is laminated on the inside of an indented part provided on the substrate plate.

[Detailed Description of the Invention]

[0001]

[Technological Field Pertaining to the Present Invention]

This invention is an invention about a recording medium disc housing body that is appropriate for the sale and the storage of recording media discs used in computer or music applications, like compact discs, mini discs, CD ROM, digital video discs, laser discs, etc.

[0002]

[Prior Art]

In the past, as the containers for the sale and the storage of compact discs etc., usually, the containers have been used that had a structure formed as a formed from a synthetic resin main body and a cover are connected to they can freely rotate, and on the inner side of the main body a disc housing tray is contained. Figure 8 shows one example of a compact housing container according to the previous technology. The housing container 1 is formed from the main body 3, the cover 5, which is connected to the above described main body 3 through a hinge structure so that it can freely rotate, and the contained in the above described main body 3, disc housing tray 7. The above described main body 3 is formed as on the perimeter of the plate part 9 the side wall 10 is provided, and the side walls among the above described side walls that are facing each other are constructed so that they are lower than the outer perimeter part 11 of the plate part 9, so that they fit on the inner side of the above described cover 5, and on the top part several cut outs 13 are provided.

[0003]

The above described cover part 5 is formed as a horizontal side wall 17 is provided on the perimeter of the plate part 15, and as the protrusion 19 that is provided on the inner side of the above described side wall 17, which protrudes from the plate part 15, fits into the penetration opening that is provided on the side wall 10 of the above described main body 3, these are connected so they can freely rotate. Also, on the perimeter of the side of the main body 3 of the cover 5, the folded part 20 is provided and on the inner surface of the side wall 17, the tab 21 is provided as a protrusion. Through the above described folded part 20 and the tab 21, paper is supported, which is used for printing indicating the title, the deliverance, etc. Also, regarding the tray 7 that is used in the above described disc housing, on the center part of the indentation part 23, which is used for the disc

housing, the disc supporting part 25 is provided as a protrusion. The above described disc supporting part 25 fits into the disc permeation opening and is fixed, and together with that the disc recording surface is supported so that it is in a floating state and there is no contact. The tray 7 that is used in a disc container with the above described structure is contained inside the main body 3 and it is assembled as one body.

[0004]

[Problems Solved By the Present Invention]

According to the above described in the compact disc housing container according to the previous technology, in order to fix the discs the disc supporting part 25 is provided as a protrusion, and because of that, the thickness of the main body 3 become large even only from the part of the height of the disc supporting part 25. The case is also known where the structure is formed as the above described main body 3 and the tray 7 used for the disc housing are formed as one body, however, a thickness is required from the part of the height of the disc supporting part 25. Because of that at the time of the sale and the storage of discs a large space is required and together with that it is not convenient for potable applications. Also, at the time when the disc support part 25 is destroyed, it cannot be used as a container. Then, in the case of these containers there is the problem that it has been said that because of the fact that they are formed from synthetic resins, they are easy to break if they fall because of lack of attention.

[0005]

Bags have also been used for the housing of discs, however, bags are low price and they are not convenient for placing the disc in and taking them out, and not only that but also there is the risk of the adhesion of dirt or dust. Also, the bags cannot support the discs in a fixed state and because of that the disc recording surfaces come in contact and they cannot be supported in a preferred state.

[0006]

[Goal of the Present Invention]

This invention has taken these circumstances into consideration and because of that it is an invention that suggests a recording media disc housing body in which the disc can be easily attached and detached and which together with that has a simple and light weight structure, and which can be realized at a low cost, and then, which because of the fact that it has a small thickness is convenient for portability, and which usually can support the recording surface of the disc in a clean state.

[0007]

[Measures in Order to Solve the Problem]

According to this invention in order to achieve the above described goal, the following structure is realized. Namely, the recording media disc housing body according to the Claim 1 of the present invention is characterized by the fact that it is a disc housing part where on the surface of one side and/or both sides of a substrate plate a smooth silicone resin layer is layer laminated, and on the above described silicone resin layer the recording media disc is attached and supported. Also, the recording media disc housing body according to the Claim 2 of the present invention is characterized by the fact that the above described silicone resin layer is formed from a silicone resin with a hardness that is in the range of 20 ~ 70 degrees. Also, the recording media disc housing body according to Claim 3 of the present invention is characterized by the fact that the above described silicone resin layer is layer laminated on the substrate plate with a primer in between. Also, the recording media disc housing body according Claim 4 of the present invention is characterized by the fact that the above described substrate plate has a main body formed from a paper type material. Also, the recording media disc housing body according to Claim 5 of the present invention is characterized by the fact that the above described substrate plate has a main body formed from a synthetic resin type material.

[0008]

Also, the recording media disc housing body according to Claim 6 of the present invention is characterized by the fact that in the above described disc housing part a disc cover part is provided. Also, the recording media disc housing body according to Claim 7 is characterized by the fact that on the surface of one side and/or two sides of the above described substrate plate, in order to attach and support two or more discs, two or more silicone resin layers are sequentially layer laminated. Also, the recording media disc housing body according to Claim Paragraphs 8 of the present invention is characterized by the fact that the 2 or more of the above described disc housing parts are attached through a folded part. Also, the recording media disc housing body according to Claim 9 of the present invention is characterized by the fact that on the surface of one side and/or two sides of the above described substrate plate, in order to attach and support two or more discs, two or more silicone resin layers are sequentially layer laminated and the disc housing part is formed, and 2 or more of the above described disc housing parts are attached through a folded part. Also, the recording media disc housing body according to Claim 10 of the present invention is characterized by the fact that the above described disc housing part is formed as a silicone resin layer is laminated on the inside of an indented part provided on the substrate plate.

[0009]

[Practical Embodiment of the Invention]

Here below, diagrams of the present invention will be presented and a detailed explanation will be provided regarding its practical embodiment. Figure 1 shows the first practical embodiment of the disc housing body according to the present invention, and the disc housing body 29 is formed as on the disc housing part 33, that is formed as the silicone resin layer 31, which tightly holds the disc, is layer laminated on the substrate

plate 30, the cover part 37 is connected and provided, through the folded part 35 by using a folding groove. In order to protect the surface, on the above described silicone resin layer 31 the release paper 39 is glued so that it can be freely peeled. For the housing of a disc inside the above described disc housing body 29, it is a good option if the above described release paper 39 is peeled off and the disc is placed on the above described silicone resin layer 31 and it is adhered, and the cover part 37 is folded and stacked.

[0010]

There are no specific limitations regarding the material that forms the above described substrate material 30 and the cover part 37, and it is possible to use paper, paper board, thick paper, processed paper, synthetic paper, etc., paper type materials, synthetic resin, metal, synthetic wood material etc. Also, it is a good option if two or more of these materials are combined, for example, if the substrate material 30 is made from synthetic resin plate, the cover part 37 is made from paper type material, and the structure is formed as the cover part 37 is glued on the surface of the substrate material 30, or it is also a good option if both the substrate material and the cover part are formed as a synthetic resin film is laminated on the surface of a paper type material. In the case when the cover part 37 is a freely folded material, it is possible to eliminate the above described folded part 35 or it is possible to simply fold and crease.

[0011]

According to the present invention, adhesive properties, heat resistance properties, cold resistance properties, etc., properties that are characteristics of the silicone resins, are utilized, and because of that by only placing the disc it can be tightly adhered and reliably held. Regarding the above described silicone resin layer 31, it makes the disc adhere and together with that it holds the disc clean from the adhesion of dirt, dust, fibers etc., on its recording surface. The surface of the silicone resin layer 31 is provided with a smooth finish and it is preferred if it is close to a mirror surface. Also, regarding the above described silicone resin layer 31, as long as it is formed from a silicone resin that has a hardness in the range of 20 ~ 70 degrees, and that the horizontal surface shape is large enough to adhere and hold the disc, there are no particular limitations, however, for the perimeter part, it is preferred that the circular shape cut outs 38 are provided on the center part that matches the size of the housed disc.

[0012]

Regarding the structured body that forms the structure of the disc housing part 33 from the above described substrate material 30 and the silicone layer 31, as it is shown according to the presented in Figure 2, it is a good option if it is formed as on the back surface of the silicone resin layer 31, the primer 36 is provided and it is layer laminated onto the substrate material 30, or it is also a good option if it is formed as on the back surface of the silicone resin layer 31 the primer 36 is provided and it is layer laminated onto a synthetic resin manufactured sheet, and after that, the above described synthetic resin manufactured sheet is glued and adhered onto the substrate material 30 through an

adhesive agent. Also, regarding the above described silicone resin layer 31, it can be layer laminated on the substrate material 30 through the printing method or through the spreading and combining method.

[0013]

In the case of the printing method, the printing surface of the substrate material 30 is treated with a primer, and it is homogeneously finished and heat treated and after that, by using a number 330 ~ number 70 mesh screen, and by using a silicone prepared with a solvent, a printing is conducted. After the printing, it is heated at a temperature that is in the range of 80°C ~ 150°C, and a heat treatment is conducted. On the other hand, in the case when the spreading and combining method is used, it is a good option if the molded in advance silicone resin sheet is punched into the predetermined shape, and on the back surface a primer treatment is conducted, and it is layer laminated onto the substrate material 30, or it is also a good option if a primer treatment is conducted and it is temporarily layer laminated onto the synthetic resin manufactured sheet, and it is fixed and adhered onto the substrate material 30 through an adhesive agent that is coated on the surface of the above described synthetic resin manufactured sheet. Moreover, according to the above described practical embodiment state, on the substrate material 30 one silicone resin layer 31 is layer laminated and through that the structure of the disc housing part 33 is formed, however, the silicone resin layer is not limited to a single layer, and it is also a good option if in order to house 2 or more discs, 2 or more silicone resin layers are layer laminated in an arrangement.

[0014]

Figure 3 represents a second practical embodiment state of the disc housing body according to the present invention, and it is a body that has a structure where a disc housing part and a cover part are used at the same time, and because of that the connection becomes through the folding part of the disc housing part according to the first practical embodiment state. Namely, the disc housing body 40 is formed as the disc housing parts 33 a, which are formed as the silicone resin layer 31a, which tightly holds the disc, is layer laminated on the substrate plate 30a, are connected through the folding part 35 a. On the above described silicone resin layer 31a, in order to protect the surface, the release paper 41 is adhered so that it can be freely peeled off. For the housing of the discs in the above described disc housing body 40, it is a good option if the above described release paper 41 is separated and the two discs are correspondingly placed on the above described silicone resin layers 31 a, and they are tightly adhered, and the two disc housing parts 33 a are closed and combined.

Moreover, according to the above described practical embodiment state, an explanation has been provided regarding a structure where two disc housing parts 33a, are connected, however, it is also possible to connect 3 or more disc housing parts. In the case when 3 or more disc housing parts are connected, it is possible to have the mutually distant bellows folding.

[0015]

Regarding the release paper 39, 41 that is in the above described disc housing parts 33, 33a, it is also a good option if it is formed in the same shape as the silicone resin layer 31, and 31 a. Also, on the inner and /or outer surface of the substrate plate 30, 30 a and the cover part 37, it is possible to color print an image indicating the recorded content of the disc, the title, the deliverance, a catch phrase, an advertisement, etc, and it is possible to provide the silicone resin layers 31, 31 a on the above described printing. In the case when as described above the silicone resin layers 31, 31 a are provided on the printing, it is preferred to use transparent or semi-transparent silicone resin layers. Moreover, the material of the substrate plate 30 a, the method for the formation of the silicone resin layer 31 a, and the printed markings etc., are the same as those according to the first practical embodiment, and they are also the same in the case of the below described practical embodiment. Consequently, in the below described, the explanations for the same structures will be eliminated for simplification.

[0016]

In Figure 4 and Figure 5, a third practical embodiment of a disc housing body according to the present invention is presented where an indented part is provided in the disc housing part. Namely, in the case of the disc housing body 43, for the substrate plate 30 b a corrugated fiberboard, etc., thick paper is used and the disc housing part indented part 45 is provided, and on the above described indented part 45 the silicone resin layer 331b, which tightly holds the disc, is layer laminated, and the disc housing part 33 b is formed, and on the outer surface of the above described disc housing part 33b the paper gluing part 49 is glued, which comes from a paper material that has a size that is twice that of the substrate plate 30 b, and half part of which is used as the cover part 47 and half part is used as the glued part 49. Regarding the depth of the indented part 45, it is a good option if it is approximately equal to the thickness of the disc, and it is also a good option if it is formed to be shallow. Moreover, in the figure, 50 and 51 represent the finger slots for handling the disc.

[0017]

Figure 6 shows a fourth practical embodiment of the disc housing body according to the present invention. Regarding the disc housing body 53 according to this practical embodiment, it is formed from the disc housing part 33 c as a silicone resin layer 33 c is layer laminated on the substrate material 30 c, which is formed as the spindle body 57 that has the penetration opening 55 for the disc insertion and the cover part 59, are connected, and the silicone resin layer 31 c is formed so that it is fixed as one body with the spindle body 57, so that it is inserted into the above described penetration opening and with the substrate plate 30 c, and the above described penetration opening 55 is made to be the disc housing indented part. In the case such as this where the disc housing part is made from the spindle body, compared to the third practical embodiment state, the formation of the silicone resin layer is easy. Also, in the cases such as those according to

the third and the fourth practical embodiment state, where the disc is housed in an indented part, it is possible to be stored even more safely.

[0018]

Then, in Figure 7 an example of the use of the recording media disc housing body according to the present invention, is shown, and according to this example, the disc housing body 60 is formed as on the substrate plate 30 d a silicone resin layer 31 d is layer laminated and this becomes the disc housing part 33 d, and through the broken line 61 on the substrate plate 30 d the binding material 63 is connected. At the time when it is bound and inserted into the book 65, it is a good option if the disc is tightly adhered onto the above described silicone resin layer 31 d, and after that the disc covering cover is provided as one body and it is tightly enclosed. Then, as the above described binding material 63 is bound and inserted into the book 65, by that it is possible to be unified as one body, and because of that the substrate plate 30 d can be formed as an extremely thin plate, and because of that, it is possible to eliminate the swelling and to hold the thickness of the book 65 to a minimum.

[0019]

In the case when it is used as a disc housing body, it is also a good option if it is separated from the binding material 63. If the binder used opening 64 is cut through and provided, after the cut has been performed, it is also possible that it is bound and inserted into the binder and by that it is stored and protected. Also, it is possible to be used by removing only the cover, as it is not detached from the book 65. Moreover, it is also possible that the disc housing part 33 d be inserted into a bag, and the above described bag is bound and inserted into the book.

In recent years, computer magazines and music magazines etc., have been sold as one with the books as attached peripherals, and because of the fact that the disc housing body according to the present invention can be formed in an extremely thin shape, naturally when bound and inserted into the books it is a state that is extremely efficient for the storage.

[0020]

Moreover, regarding each of the above described practical embodiment states, the recording media disc housing part has been formed as on one surface of the substrate plate a silicone resin layer has been provided, however, it is also possible that a silicone resin layer be provided on both surfaces of the substrate plate. In this case, it is preferred that cover parts are provided on both surfaces. Also, in the disc housing body is possible to appropriately eliminate the cover part. Then, the scope of this invention, naturally, can be appropriately modified and changed.

[0021]

[Results From the Invention]

Regarding the recording media disc housing body according to the present invention, it is a body where a silicone resin layer is layer laminated on a flat substrate plate and because of that the thickness becomes almost the same as the thickness of the substrate plate and even in the case when a disc is housed, the substrate thickness does not exceed that of the disc. Also, it is body where the bonding properties of the silicone resin are advantageously used and because of that the disc attachment and detachment become easy and the disc is tightly held as a whole body and not only that but also there is the second justification result where it is said that dust, dirt etc., are eliminated and the recording surface of the disc is usually held in a clean state. Also, the disc housing body according to the present invention has a structure that is simple and light weight, and it can be practically realized at a low cost, and together with that it has a small thickness, and because of that it is useful for storage and for portable applications. Also, it is possible to have any type of printing on the substrate plate and a separate printing paper and container, such as in the case according to the previous technology, are not necessary, and it is possible to design a simplification and a small thickness of the structure through making the two as one body.

[Brief Explanation of the Figures]

[Figure 1]

Figure 1 represents a three-dimensional diagram of the first practical embodiment of the disc housing body according to the present invention.

[Figure 2]

Figure 2 represents an enlarged sectional view diagram of the essential parts of the same.

[Figure 3]

Figure 3 represents a three-dimensional diagram of the second practical embodiment of the disc housing body according to the present invention.

[Figure 4]

Figure 4 represents a three-dimensional diagram of the third practical embodiment of the disc housing body according to the present invention.

[Figure 5]

Figure 3 represents a three-dimensional diagram of the second practical embodiment of the disc housing body according to the present invention.

[Figure 5]

Figure 5 represents an enlarged sectional view diagram of the essential parts of the same.

[Figure 6]

Figure 6 represents a three-dimensional diagram of the fourth practical embodiment of the disc housing body according to the present invention.

[Figure 7]

Figure 7 represents a three dimensional view diagram for the explanation showing an example of the use of the binding and inserting into a book.

[Figure 8]

Figure 8 represents a disassembled three dimensional view diagram of the compact disc housing container according to the previous technology.

[Explanation of the Signs]

29.....	disc housing body
30.....	substrate plate
30a.....	substrate plate
30b.....	substrate plate
30c.....	substrate plate
30d.....	substrate plate
31.....	silicone resin layer
31a.....	silicone resin layer
31b.....	silicone resin layer
31c.....	silicone resin layer
31d.....	silicone resin layer
33.....	disc housing part
33a.....	disc housing part
35.....	folding part
35a	folding part
36.....	primer
37.....	cover part
38.....	cut out
39.....	Release paper
40.....	disc housing body
41.....	release paper
43.....	disc housing body
45.....	indented part
47.....	cover part
49.....	adhesive part
50.....	finger slots

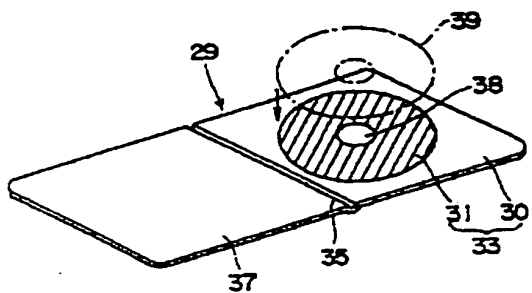
51.....finger slots
53.....disc housing body
55.....penetration opening
57.....spindle body
59.....cover part
60.....disc housing body
61.....broken line
63.....binding material
64.....binder used opening
65.....book

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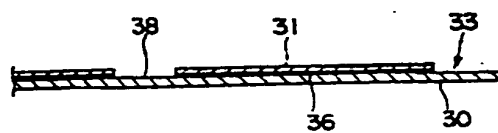
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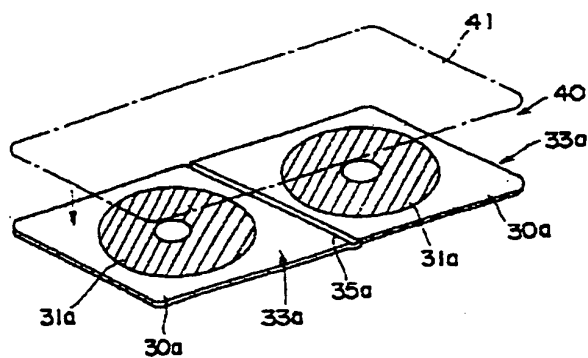
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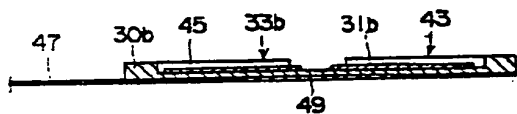
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【図3】



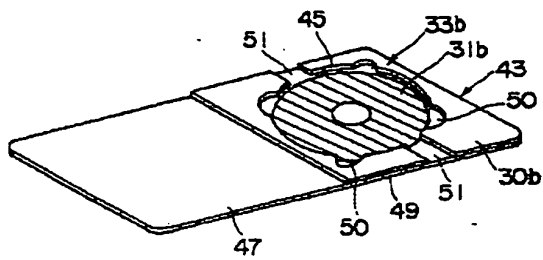
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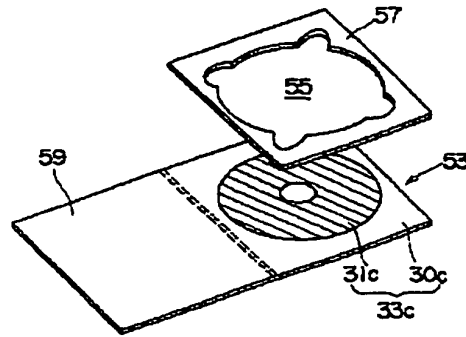
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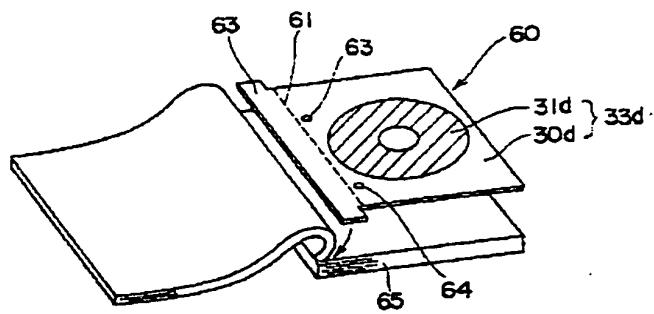
【図4】



【図5】



【図7】



【図8】

